

## CLAIMS

What is claimed is:

1. A method for performing smooth search transitions in a DVD system, the method  
5 comprising:

- (a) calculating an instantaneous frame rate;
- (b) adjusting a timestamp of a frame based on the calculated instantaneous; and
- (c) displaying the frame according to the adjusted timestamp.

2. The method of claim 1 wherein calculating further comprises determining a  
10 change in rate between a current frame rate and a new frame rate.

3. The method of claim 2 determining a transition interval for the change in rate.

4. The method of claim 3 wherein the transition interval further comprises an  
15 interval sufficient to maintain audio and video synchronization.

5. A DVD player system with smooth search transition capabilities, the system  
comprising:

- 20 a display device for displaying frames; and
- a decoding engine for calculating an instantaneous frame rate, adjusting a timestamp  
of a frame based on the calculated instantaneous, and providing the frame to the display  
device according to the adjusted timestamp.

6. The DVD player system of claim 5 wherein the decoding engine further determines a change in rate between a current frame rate and a new frame rate.

5 7. The DVD player system of claim 6 wherein the decoding engine further determines a transition interval for the change in rate.

8. The DVD player system of claim 7 wherein the transition interval further comprises an interval sufficient to maintain audio and video synchronization.

9. The DVD player system of claim 5 wherein the DVD player system further comprises a PC-based DVD player.

10. A computer readable medium containing program instructions for performing search transitions in a DVD system, the instructions comprising:

- (a) calculating an instantaneous frame rate;
- (b) adjusting a timestamp of a frame based on the calculated instantaneous; and
- (c) displaying the frame according to the adjusted timestamp.

20 11. The computer readable medium of claim 10 wherein calculating further comprises determining a change in rate between a current frame rate and a new frame rate.

12. The computer readable medium of claim 11 determining a transition interval for the change in rate.

13. The computer readable medium of claim 12 wherein the transition interval  
5 further comprises an interval sufficient to maintain audio and video synchronization.